

10. *Peleteria thomsoni* Will. Twenty specimens (18 ♂ and 2 ♀), varying from small to large, as follows: Sixteen males, top of ridge above head of Filmore Cañon, about 8,500 ft., August 28, six taken on flowers of *Eriogonum jamesii* Benth. One male and one female, Filmore Cañon, about 6000 ft., August 29, on flowers of *Gutierrezia sarothrae*. One male and one female in cop., Filmore Cañon, about 7000 ft., August 28, on flowers of *Gutierrezia sarothrae*.

11. *Gaediopsis monticola* n. sp. One male, top of ridge above head of Filmore Cañon, about 8,500 ft., August 28.

Length, 10½ mm. Differs from description of *G. setosa* Coq. (Rev. Tach. p. 136) as follows: Tibiæ yellowish red, the anterior ones blackish at base. Face and sides of front pale yellowish, former silvery and latter cinereous pollinose. Second antennal joint yellowish or reddish. Sides of abdomen on first, second, and third segments broadly pale

red, leaving a broader median area of black between, which widens posteriorly. Front at bases of antennæ twice as wide as either eye, at vertex one and one-fifth times width of either eye. The fine bristly hairs on sides of face are in two parallel approximated rows near margin of eyes, there being none between the lateral facial row and the facial ridge row. Cheeks as broad as one-half eye-height, clothed with bristly hairs. Antennæ four-fifths as long as face, third joint nearly or quite three times as long as second. First arisal joint as long as wide; second four or five times as long as first, and fully one-third total length of last joint, which is much tapered on its final third. The middle tibiæ each bear four macrochaetae on front side, the fourth or upper one the shortest, increasing in length to the lowest one which is longest. Otherwise agrees in all respects with the characters given for *G. setosa*.

NOTES ON NEW ENGLAND ACRIDIIDAE, IV, — ACRIDIINAE, III.

BY ALBERT P. MORSE, WELLESLEY, MASS.

22. SCHISTOCERCA Stål.

Schistocerca Stål 1873. Recensio orthopterorum, I, 73.

This genus includes locusts of large size and rapid and powerful flight; they are somewhat arboreal in habit, frequently alighting or feeding on trees and shrubs.

31. *Schistocerca rubiginosa* Harris.

Fig. 31.

Acridium rubiginosum. Harris Mss. in Scudder, Materials etc., Boston Journ. Nat. Hist., VII, 467 (1862); Thomas, Syn. Acrid., 170; Fernald, Orth. N. E., 31; Comstock, Introd., 106; Beutenmüller, Orth. N. Y., 304.

Acrydium rubiginosum. Smith. Orth. Ct., 370.

Schistocerca rubiginosa. Morse, List, 105.

Measurements from 104 ♂, 43 ♀:—Antenna: ♂, 13-14.5; ♀, 14-16. H. fem.: ♂, 16-19; ♀, 20.5-24; Teg.: ♂, 25-30; ♀, 32-41. Body: ♂, 28-33; ♀, 39-54. Total: ♂, 34-39; ♀, 44-53 mm.

One male from Connecticut has the dorsal margin of the tegmina pale in color but not of the bright yellow of *alutacea*. This species is much more uniform in color than *alutacea*, rarely or never showing any olivaceous, though males taken late in the season (Sept. 24-Oct. 30) at Wellesley have much of the rusty color replaced by gray. The tegmina are often almost immaculate.

It is more widely distributed in New England than *alutacea* and differs from it in preferring drier stations; I have found it most frequently in bushy pastures and wild land on sandy soil and along railway embankments, but otherwise its habits appear similar. My specimens were taken at various dates from Aug. 5 to Oct. 30 at Provincetown, Dedham (C. J. Maynard), and Wellesley, Mass.: Kingston and Wickford, R. I.; Thompson, Deep River, New Haven, North Haven, Stamford, and Greenwich, Ct. Among these is an immature female from Provincetown on Sept. 5.

32. *Schistocerca alutacea* Harris.

Fig. 32.

Acrydium alutaceum. Harris, Report on Ins. Mass. inj. to veg., p. 139 (1841), — Treatise, 3rd ed., 173:

Acrydium alutaceum. Smith, Orth. Ct., 373.

Acrydium alutaceum. Scudder, Materials, 466; Thomas, Syn. Acrid., 171; Fernald. Orth. N. E., 31; Comstock, Introd., 106; Beutenmüller, Orth. N. Y., 4304.

Schistocerca alutacea. Morse, List, 105.

Measurements from 113 ♂, 84 ♀:—Antenna: ♂, 15-17; ♀, 14.5-17.5. H. fem.: ♂, 17.5-19.5; ♀, 22.5-27. Teg.: ♂, 24-30; ♀, 36-42. Teg. pass H. fem.: ♂, 2-5; ♀, 5-8. Body: ♂, 28-32; ♀, 42-50. Total: ♂, 33-39; ♀, 48-54 mm.

The ground-color of this species varies remarkably in fresh specimens, ranging from olive-green through yellowish to deep reddish brown; the pronotum and tegmina while sometimes unspotted are usually and in some cases heavily marked with dusky blotches.

This species is easily distinguished from *rubiginosa*, the other common member of the genus, by the bright yellow mid-dorsal line, but there are also structural differences very noticeable on comparison: the head and prozona are narrower and the vertex and facial costa narrower and more prominent in *alutacea* than in *rubiginosa* (see figs.); *rubiginosa* also has stouter fore femora.

This species is common, even abundant locally, in southern New England. I have taken it at West Chop, Martha's

Vineyard, Mass., and Deep River, North Haven and Stamford, Ct., where I found it most at home in the long sedge and coarse weeds of moist meadows and bushy swamps. The males apparently greatly outnumber the other sex and being more active are more likely to be seen and secured than the relatively sluggish females. On warm days both sexes fly freely, frequently alighting on bushes and trees. Adults begin to appear in the second week of August but immature specimens may be found three weeks or a month later.

The last of August or early September is the most favorable time for collecting.

33. *Schistocerca americana* Drury.

Gryllus americanus. Drury, Illustr. Nat. Hist., vol. II, app., (1773) name?. Fig. in vol. I, pl. 49, fig. 2; described, p. 128, (1770).

Locusta tartarica? Drury, Exot. Entom., Westwood ed., vol. I, p. 121, pl. 49, fig. 2 (1839).

Acridium americanum. Scudder, Materials, 466; Comstock, Introduct., 106; Beutenmüller, Orth. N. Y., 304.

Six males, six females from Indiana give the following measurements:—Antenna: ♂, 12; ♀, 13-15. H. fem.: ♂, 23-24; ♀, 28-30. Teg.: ♂, 42-44; ♀, 50-55. Teg. pass H. fem.: ♂, 10-12; ♀, 12-16. Body: ♂, 39-42; ♀, 48-55. Total: ♂, 52-55; ♀, 62-68 mm.

This handsome locust will be readily recognized by its great size and con-

spicuous markings (see fig. in Comstock, and Beutenmüller, loc. cit.). It is rarely found in New England and must be considered a purely adventitious species, specimens observed being simply wanderers from the southwest. It has been taken several times in the vicinity of New York City and probably reaches southwestern Connecticut not very infrequently, but its occurrence near Boston was quite unexpected. On Oct. 1, 1883, it was found by Mr. F. H. Sprague at Wollaston, Mass., where it was "tolerably abundant in one spot on the beach, among the tall grass below high-tide mark" (Psyche, Dec. 1895, p. 318). In the vicinity of New York it is said by Beutenmüller to occur from early May to early July and again from the latter part of September to early November.

23. *Hesperotettix* Scudder.

Hesperotettix Scudder 1876. Bull. U. S. Surv. Terr., II, p. 262.

34. *Hesperotettix brevipennis* Thomas.

Ommatolampis brevipennis. Thomas. Bull. U. S. Geol. Surv. Terr., I, No. 2, 1st Ser., p. 67 (1874).

Hesperotettix viridis. Morse,—List, 103, 106.

Hesperotettix brevipennis. Scudder,—Rev. Melanopli, 63, pl. v, fig. 2.

Measurements from 24 ♂, 18 ♀:—Antenna: ♂, 7.25-8.5; ♀, 6.3-7.2. H. fem.: ♂, 9.5-10.5; ♀, 11.8-12.7. Teg.: ♂, 7.6-10; ♀, 9.7-11.7. Body:

♂, 15-17; ♀, 20-24 mm. The tegmina fall distinctly short of the end of the abdomen in both sexes, reaching on the hind femur a point from one-half to two-thirds the length of the latter from its base.

This is one of our rarer locusts and with its delicately contrasted tints of green and purple is one of our daintiest and most attractively colored species. I took one male, all that I could find, at Wellesley, Mass., in August, 1891, in the early days of my collecting. This specimen was referred to Mr. Scudder who determined it provisionally as *H. viridis* under which name it was recorded (Psyche VI, p. 262) and referred to in my List (Psyche VII, pp. 103, 106). In the succeeding July I found a female. The next year, owing to absence at the proper time, none were taken. In 1894 and '5 I took several. In 1896 my pupils and I secured a number from various points near the first locality. All were captured by sweeping vigorously the short, tufted growth of bunch-grass (*Andropogon scoparius*) which with other wild grasses and running-blackberry vines sparsely clothe the thin soil of the gravel-plain formation of Wellesley. It has since been found by Mr. F. H. Sprague, from whom I have received specimens, in a similar station at Walpole, Mass. (Psyche, VII, 439). In New Jersey it is said by Uhler to be not uncommon in the cranberry fields of Atlantic Co. While apparently very local it probably inhabits many parts of the three southern New England States.

The season during which it may be found seems to be relatively short; the Wellesley specimens were all taken between July 10 and Aug. 8, nymphs being secured on the first date and search in September proving unsuccessful. Mr. Sprague's specimens were taken on Aug. 30, but he was unable to find a male.

24. *Podisma* Latr.

Podisma Latreille 1829. Cuvier, Regne Animal, v, p. 188 (Disciples' ed., Insectes, II, 24).

35. *Podisma glacialis* Scudd.

Pezotettix glacialis. Scudder, Boston Journ. Nat. Hist., vii, 630, 631, pl. xiv, figs. 9, 10 (1863). Smith, Orth. Me., 149; Thomas, Syn. Acrid., 148; Fernald, Orth. N. E., 29; Morse, List, 106.

Podisma glacialis. Scudder, Rev. Melanopli, 98, pl. vii, fig. 3.

Measurements from 48 ♂. 62 ♀: Antenna: ♂. 8-9; ♀. 7-8.5. H. fem.: ♂. 9.5-10.8; ♀. 10-12. Body: ♂, 15-17.5; ♀, 19-28 mm.

This singular and interesting locust is not uncommon on the mountains of New England in the latter part of summer. The specimens in my collection were taken between Aug. 14 and Sept. 6 on Mt. Ktaadn, Me. (F. P. Briggs); Speckled Mt., Stoneham, Me.; Mt. Kearsarge, N. H. (3250 ft.); Mt. Washington, N. H. (4000 to 5000 ft.); Mt. Ascutney, Windsor, Vt., and Mt. Greylock, Mass. (3500 ft.). It is also recorded from several points in the Adi-

rondacks, from Pennsylvania, and from Sudbury, Ont., Canada. At Jackman, Me., it has been found in "open woods and bogs" (Harvey, — *Psyche*, 1897, p. 77). Mr. Scudder states that "it frequents the close branches of the dwarf birch" in the White Mts. Some of my specimens were obtained from birch but most were found on or among

the various species of *Vaccinium* characteristic of the mountain-tops, and on *Ascutney* among dwarf cornel. It is a somewhat sluggish insect, relying chiefly for protection upon the similarity of its dark olive green coloring to that of the surrounding vegetation, though on warm days the males become fairly active.

A NEW PARASA, WITH A PRELIMINARY TABLE OF THE SPECIES OF THE GENUS.

BY HARRISON G. DYAR, WASHINGTON, D. C.

The Eucleid genera *Euclea* and *Parasa* are closely allied and indeed not well separated. There is a stronger tendency to the stalking of vein 10 of primaries in *Euclea*, but some species of *Parasa* show the same character. Judging from the American larvae alone there appear to be marked differences in the early stages of the genera; but the larva of *P. lepida*, a true *Parasa*, shows the more generalized *Euclea* form, proving that our *P. chloris* is a specialized offshoot, not a characteristic type for the genus.

Parasa is a widespread genus, being represented in all the continents except Australia and Europe. The following are its characters:—

Head partially sunken, untufted; palpi upturned, reaching half way to the vertex, third joint small, evenly clothed. Antennae of male pectinated on basal half, the tip simple, the two regions

usually sharply marked off, occasionally grading into each other; simple in female. Thorax smoothly haired, not scaly. Abdomen extending moderately beyond hind wings. Legs densely hairy; posterior tibiae with one pair of spurs. Fore wings with the costa straight, rarely convex, outer and inner margins rounded; two internal veins, 2 to 5 rather regularly spaced, 4 and 5 nearest at base; 6 from cross-vein, 7 to 9 stalked, rarely 10 also shortly stalked, 11 from cell, 12 from base; discal vein often forked and open. Hind wings with three internal veins, 2 to 5 regularly spaced, upper half of cell retracted, 6 and 7 usually stalked, 8 anastomosing with cell toward base with more or less distinct fine veinlets thrown off toward costa.

PARASA PRANINA n. sp.—Vertex of head and thorax green, a few brown hairs at base of fore wings and a very narrow central